

GENERAL NOTES

FOUNDATIONS

1. ALLOWABLE SOIL BEARING PRESSURE TO BE ASSUMED TO BE 1,500 PSF.

REINFORCED CONCRETE

1. CEMENT SHALL CONFORM TO ASTM C-150, SEE NOTE "S" BELOW FOR CEMENT TYPE REQUIRED BASED ON CONCRETE USE.
2. AGGREGATES SHALL CONFORM TO ASTM C-33 FOR STRUCTURAL NORMAL WEIGHT CONCRETE (1" MAXIMUM SIZE).
3. READY-MIX CONCRETE SHALL BE IN ACCORDANCE WITH ASTM C-94.
4. CONCRETE DESIGN MIXES SHALL BE IN ACCORDANCE WITH C.B.C. SEC. 1905 AND SHALL BE SIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF CALIFORNIA, AND HIRED BY CONTRACTOR.
5. ALL CONCRETE SHALL SATISFY BOTH THE MINIMUM STRENGTH REQUIREMENT AND MAXIMUM WATER-CEMENT RATIO BY WEIGHT AS FOLLOWS;

CONCRETE USE	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS F'c	MAXIMUM WATER CEMENT RATIO BY WEIGHT	CEMENT TYPE
FOUNDATIONS AND SLAB ON GRADE	3,000 PSI	0.45	IV

6. THE SLUMP SHALL BE 4" FOR ALL CONCRETE WORK.
7. ADMIXTURES MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
8. ADMIXTURES USED TO INCREASED THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT.
9. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE BUILDING DEPARTMENT INSPECTOR PRIOR TO PLACING CONCRETE.

CONCRETE MASONRY

1. MINIMUM 28 DAY COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY: f'm = 1,500 PSI.
2. UNITS: NORMAL WEIGHT OPEN END BLOCKS CONFORMING TO ASTM C90, GRADE N.
3. MORTAR: ASTM C270, TYPE S, f'c = 1,800 PSI FOR f'm = 1,500 PSI
4. GROUT: COMPRESSIVE STRENGTH OF 2,000 PSI FOR f'm = 1,500 PSI CMU. ALL CELLS SHALL BE FULL GROUTED.
5. GROUTING OF ANY WALL SECTION SHALL BE COMPLETED IN ONE DAY WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
6. BETWEEN GROUT POURS HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING MASONRY AT THE SAME ELEVATION WITH THE GROUT STOPPING 1/2" BELOW A MORTAR JOINT, EXCEPT AT BOND BEAMS. THE GROUT POUR SHALL BE STOPPED A MINIMUM OF 1/2" BELOW THE TOP OF THE MASONRY.
7. CLEAN OUTS SHALL BE PROVIDED FOR ALL GROUT POURS OVER 5 FEET IN HEIGHT; CLEAN OUTS SHALL BE PROVIDED IN THE BOTTOM COURSE AT ALL VERTICAL BARS, BUT SHALL NOT BE SPACED MORE THAN 32" ON CENTER. CLEAN OUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.

REINFORCING STEEL

1. BAR REINFORCEMENT SHALL CONFORM TO:  
ASTM A615, GRADE 60 ..... ALL REBAR U.N.O.  
ASTM A706, GRADE 60 ..... ALL WELDED REBAR
2. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
4. REINFORCING DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE" LATEST EDITION.
5. LAPS AT BAR SPLICES SHALL BE PER EACH INDEPENDENT DETAIL UNLESS NOTED OTHERWISE.
6. VERTICAL BARS IN WALLS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF WALL, UNLESS OTHERWISE NOTED ON DETAILS, & SHALL BE TIED IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 BAR DIA.
7. MINIMUM CONCRETE COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS U.N.O.:  
NEW CONCRETE PAD FORMED ON (E) SLAB ..... 2"
8. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE OR GROUT.

DESIGN CRITERIA

APPLICABLE CODE: 2010 CALIFORNIA BUILDING CODE

1. LATERAL LOADS

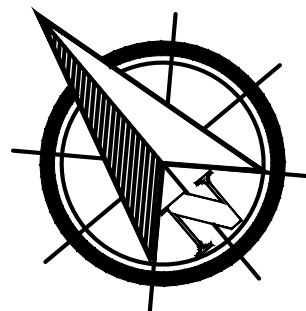
SEISMIC LOADS  
SITE COORDINATES: ..... N33.80473° W118.34753°  
SEISMIC IMPORTANCE FACTOR: ..... I<sub>p</sub> = 1.5 S<sub>1</sub> = 0.669  
MAPPED SPECTRAL RESPONSE ACCELERATIONS: ..... S<sub>s</sub> = 1.723  
SITE CLASS: ..... S<sub>0.5</sub> = 0  
DESIGN SPECTRAL RESPONSE COEFFICIENTS: ..... S<sub>0.5</sub> = 0.149 S<sub>0.1</sub> = 0.669  
SEISMIC DESIGN CATEGORY: ..... E  
SYSTEM/COMPONENT RESPONSE AMPLIFICATION FACTOR: ..... α<sub>p</sub> = 1.0  
SYSTEM/COMPONENT RESPONSE MODIFICATION FACTOR: ..... R<sub>p</sub> = 2.5  
HEIGHT IN STRUCTURE OF POINT OF ATTACHMENT, Z  
AVERAGE ROOF HEIGHT OF STRUCTURE, H  
..... Z/H = 0.0 (@ GRADE)

SEISMIC DESIGN FORCE  
HORIZONTAL  
F<sub>p</sub> = 0.4 α<sub>p</sub> S<sub>0.5</sub> W<sub>p</sub> / (R<sub>p</sub>/I<sub>p</sub>) \* (1 + 2\*Z/H)  
= 0.276 W<sub>p</sub>  
F<sub>p</sub> MIN = 0.3 S<sub>0.5</sub> I<sub>p</sub> W<sub>p</sub>  
= 0.517 W<sub>p</sub> GOVERNS

VERTICAL  
F<sub>v</sub> = 0.2 S<sub>0.5</sub> I<sub>p</sub> W<sub>p</sub>  
= 0.345 W<sub>p</sub>

WHERE: S<sub>0.5</sub> = THE DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER IN THE SHORT PERIOD RANGE  
I<sub>p</sub> = COMPONENT IMPORTANCE FACTOR. I<sub>p</sub> SHALL BE TAKEN AS 1.5 PER ASCE 7-05 FOR ESSENTIAL FACILITIES.  
W<sub>p</sub> = COMPONENT OPERATING WEIGHT (LBS)

WIND DESIGN  
BASIC WIND SPEED: ..... 85.0 MPH  
WIND IMPORTANCE FACTOR: ..... I = 1.0  
OCCUPANCY CATEGORY: ..... II  
WIND EXPOSURE: ..... C



STRUCTURAL SITE PLAN

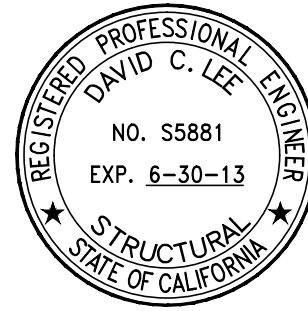
GENERAL AVIATION CENTER  
TORRANCE MUNICIPAL AIRPORT

3301 AIRPORT DRIVE  
TORRANCE, CALIF., 90505

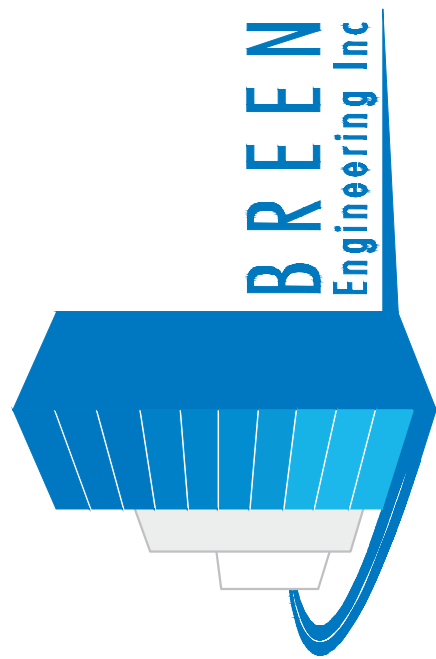
DATE: 07/30/13  
SCALE: AS NOTED  
PROJECT NUMBER: 307-13-001  
DRAWN BY: PD  
CHECKED BY: DL  
DRAWING NUMBER:

S-1

1 OF 2



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ADDITIONAL NO. 1  
UNITED SCOPE OF WORK REVISIONS TO CONTRACT  
CLIENT/PLAN CHECK ISSUANCE  
REV. DESCRIPTION  
DATE BY  
12/10/2013 OK  
06/06/2013 DL  
07/29/2013 DL